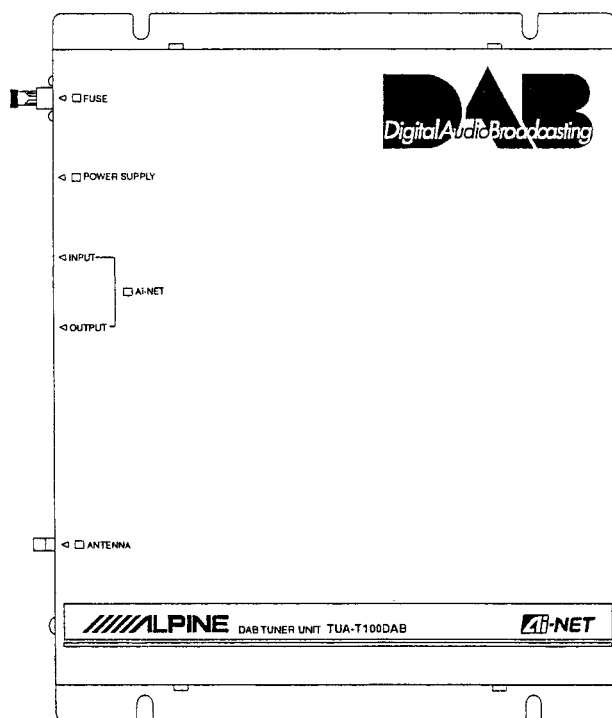


ALPINE SERVICE MANUAL

DAB TUNER UNIT



TUA-T100DAB

<Cautions for Safe Repair Work>

The following cautions will prevent accidents in the workplace and will ensure safe products.

- The symbols indicate caution is needed to prevent injuries and damage to property.

The symbols and their meanings follow.

	Warning If you ignore this symbol and handle the product incorrectly or unsafely, serious injury or death may result.
	Caution If you ignore this symbol and handle the product incorrectly or unsafely, injury or only material damage may result.

- The following symbols indicate two levels of cautions.

	When you see this symbol, you have to be very careful.
	When you see this symbol, you have to follow the instructions there.

Warning

	Do not look squarely into the laser light coming from the pickup. You may lose your sight.		Fuse Caution Always use a designated fuse. Use of an incorrect fuse may result in a fire.
---	--	---	--

Caution

	Do not allow wiring to be caught in the screw/chassis. If wiring is caught in the screw/chassis, it may cause a short circuit, resulting in a fire.		Battery Caution Use the designated battery. Confirm the correct polarity and seat of the battery. An incorrect battery or an improperly connected or seated battery may result in a fire.
	High Temperature Caution Touching the heat sink may cause severe burns.		Designated Parts Caution Look up the part list and ensure that only designated parts are used to prevent problems or accidents.
	Reverse Power Supply Connections or Misconnections Caution Reverse power supply connections or misconnections may cause ignition problems and smoke may result.		Wiring Caution Ensure that the wiring is correct when rewiring to prevent problems with ignition/breakdown.
	Soldering Caution Hot solder from solder splash may cause severe burns.		Wear Gloves Wear gloves to prevent electrical shocks or injury from the end face of the metal.

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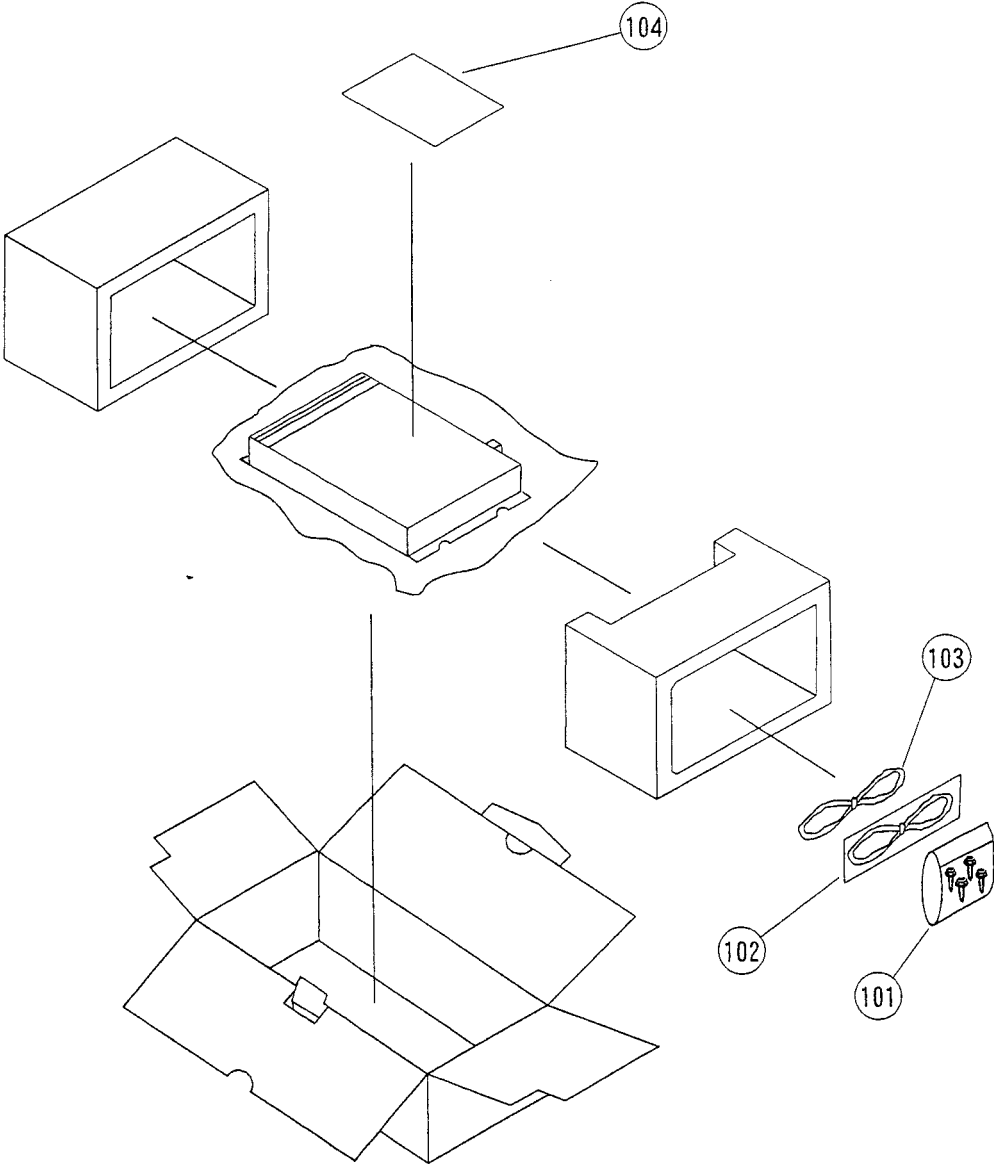
NOTE : Due to continuing product improvement, specifications and designs are subject to change without notice.

Paking Assembly Parts List

Symbol No.	Part No.	Description
101	03E34657S01	SCR, TPG (W. H) M4X14
102	01T55561W37	ASSY, DIN (AINET/5500)

Symbol No.	Part No.	Description
103	01E34653S01	ASSY, WIRE POWER
104	68P20877Y72	O/M AOEU K. W.

Packing Method View



Specifications

< BAND III RADIO >

Frequency Range	174.928~239.200MHz
S/N Ratio	80dB
Distortion (1kHz)	0.1%
Stereo Separation (1kHz)	55dB

< L-BAND RADIO >

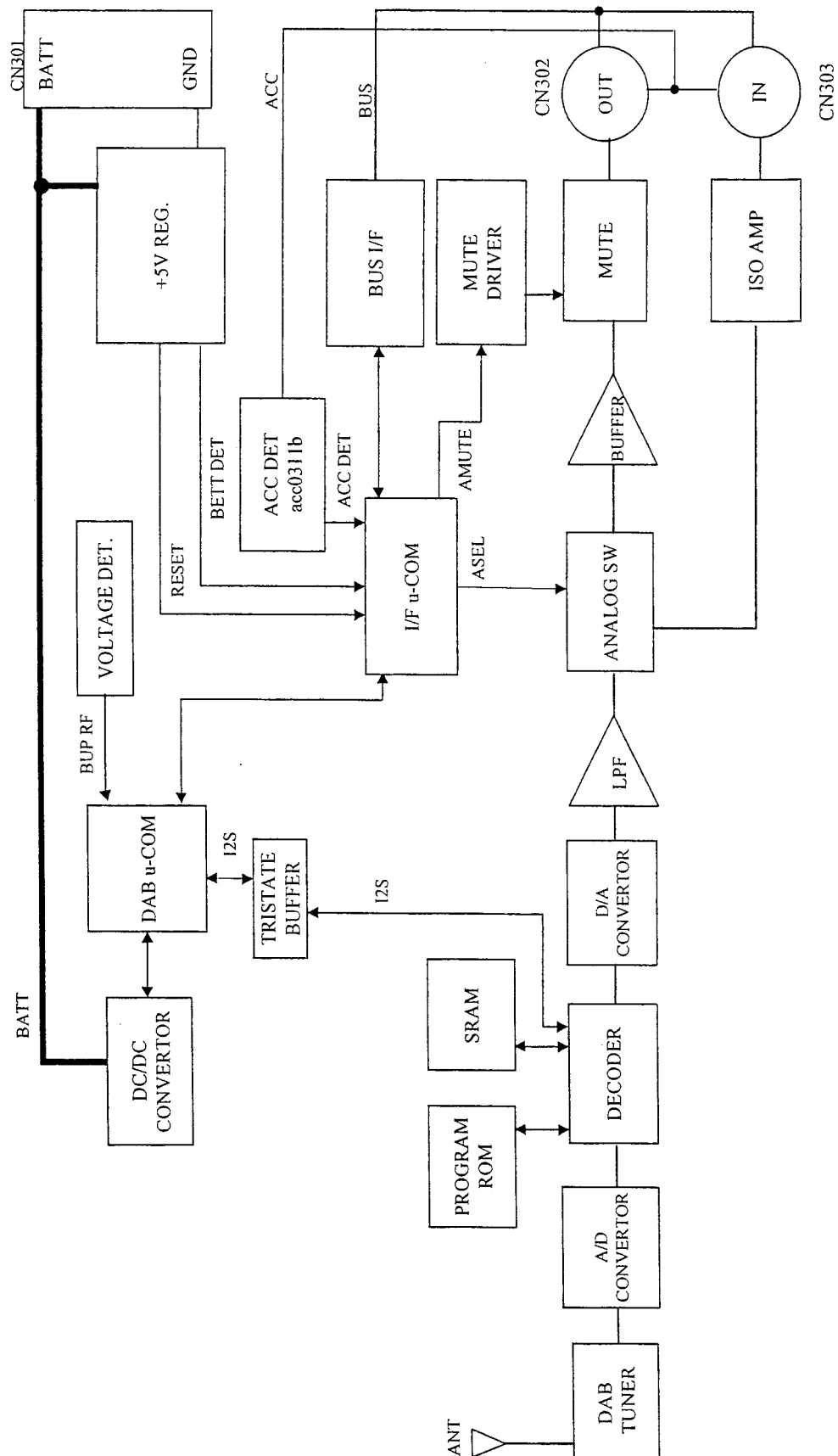
Frequency Range	1452.960~1490.624MHz
-----------------------	----------------------

< GENERAL >

Power Supply	DC14.4V
Battery Back up Current	5mA
Dimensions (W×H×D)	180×35×160mm
Weight	788g

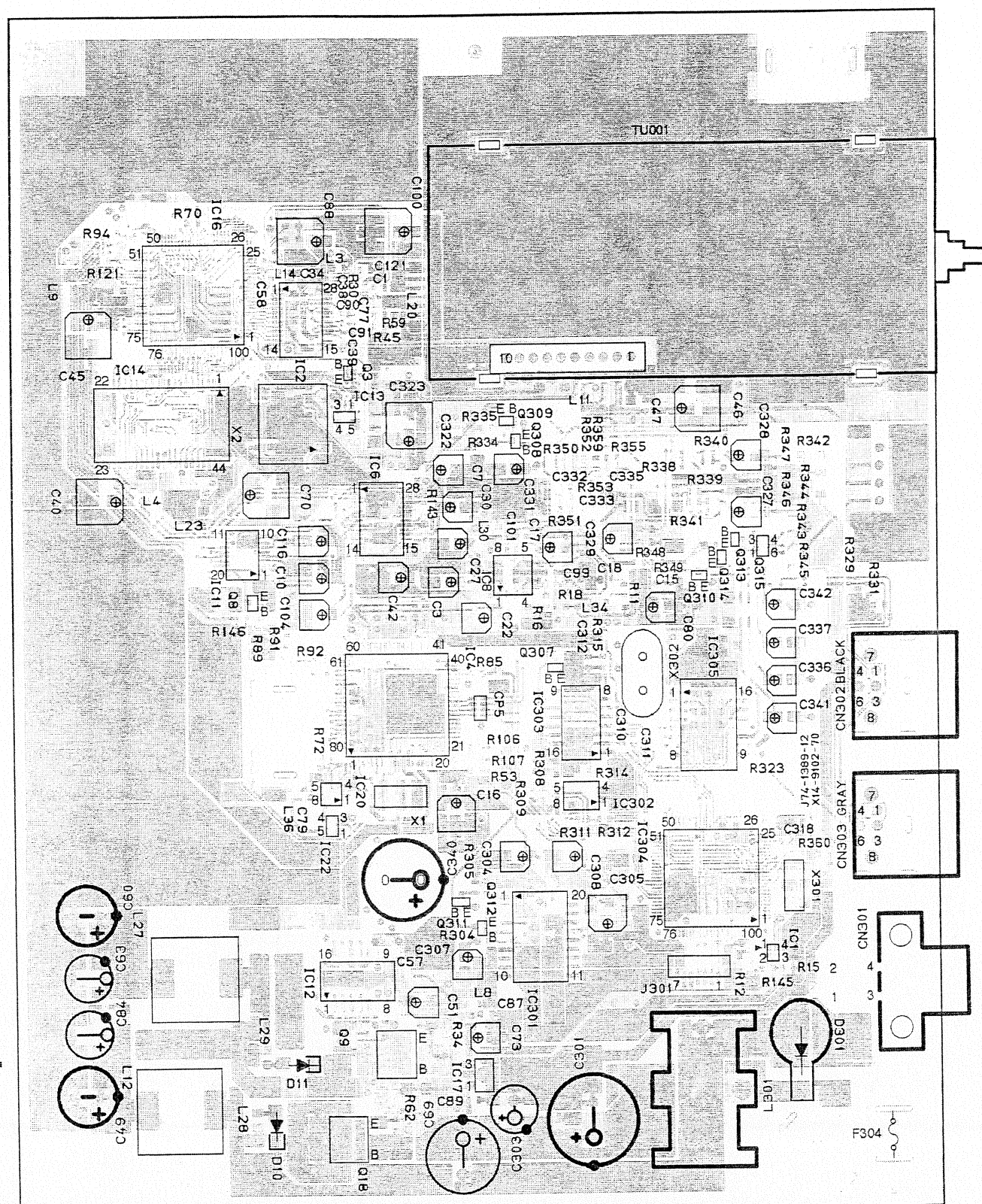
NOTES : Due to Continuing product improvement, specifications and designs are subject to change without notice.

Block Diagram

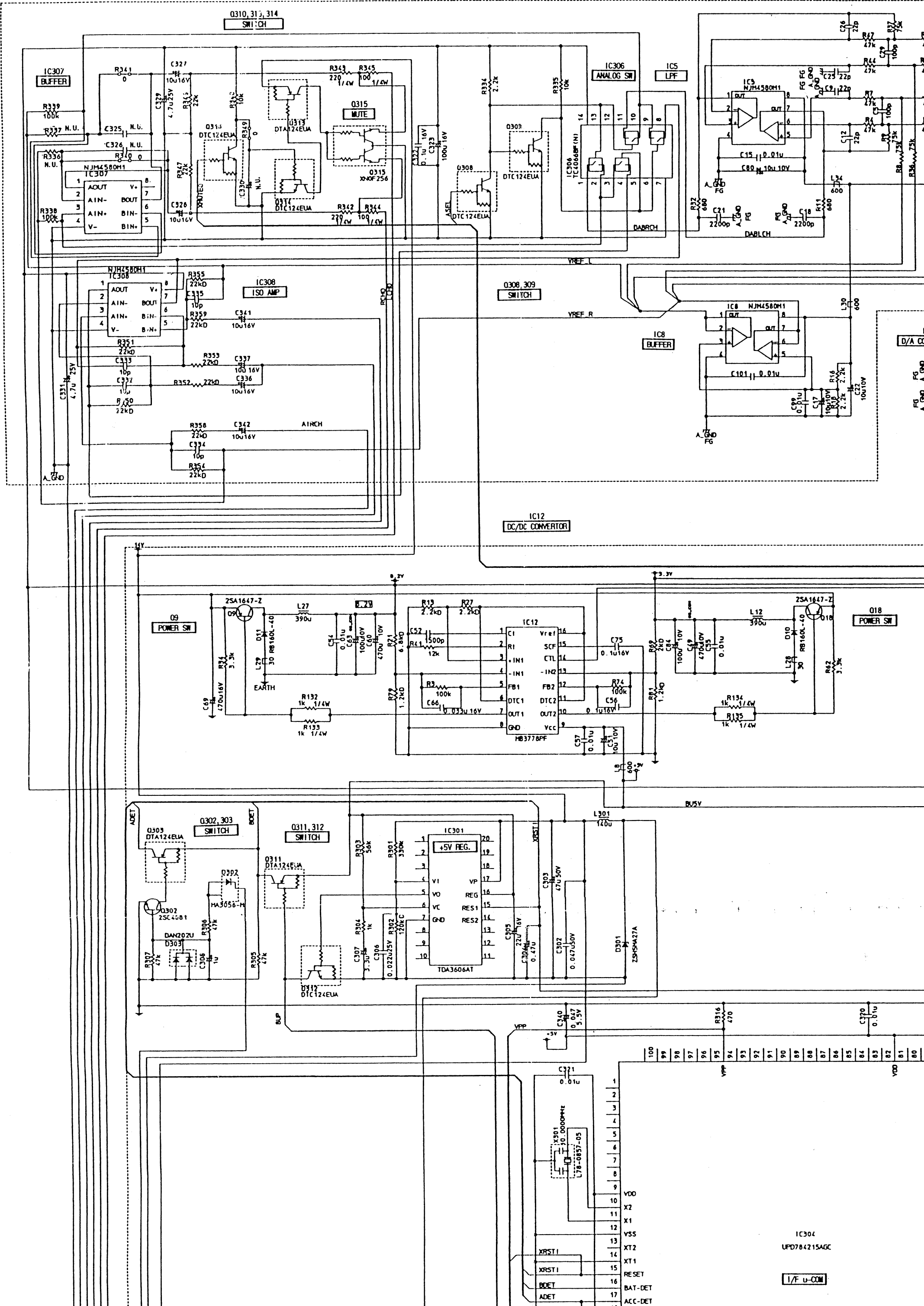


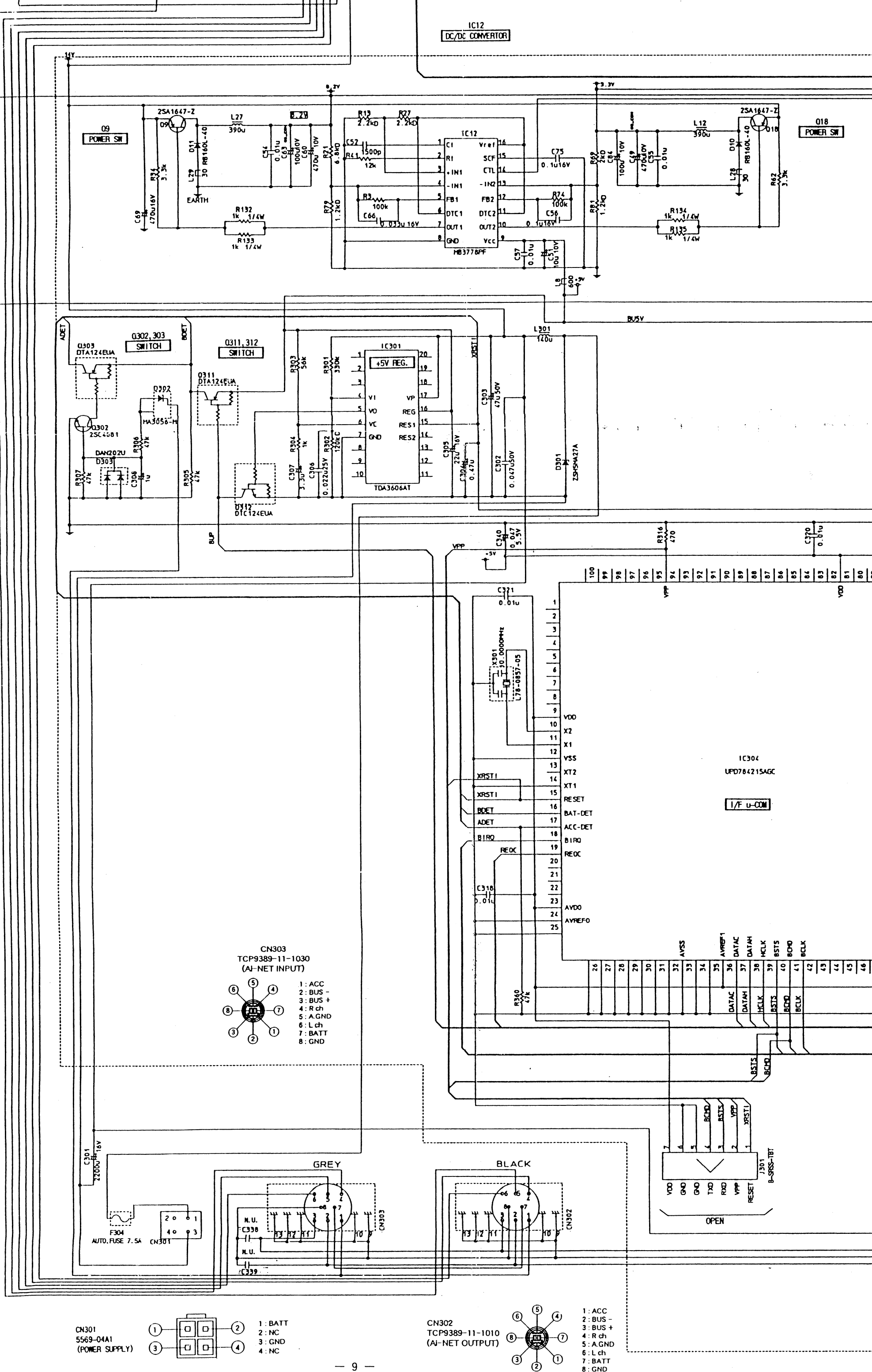
Parts Layout on P.W.Board

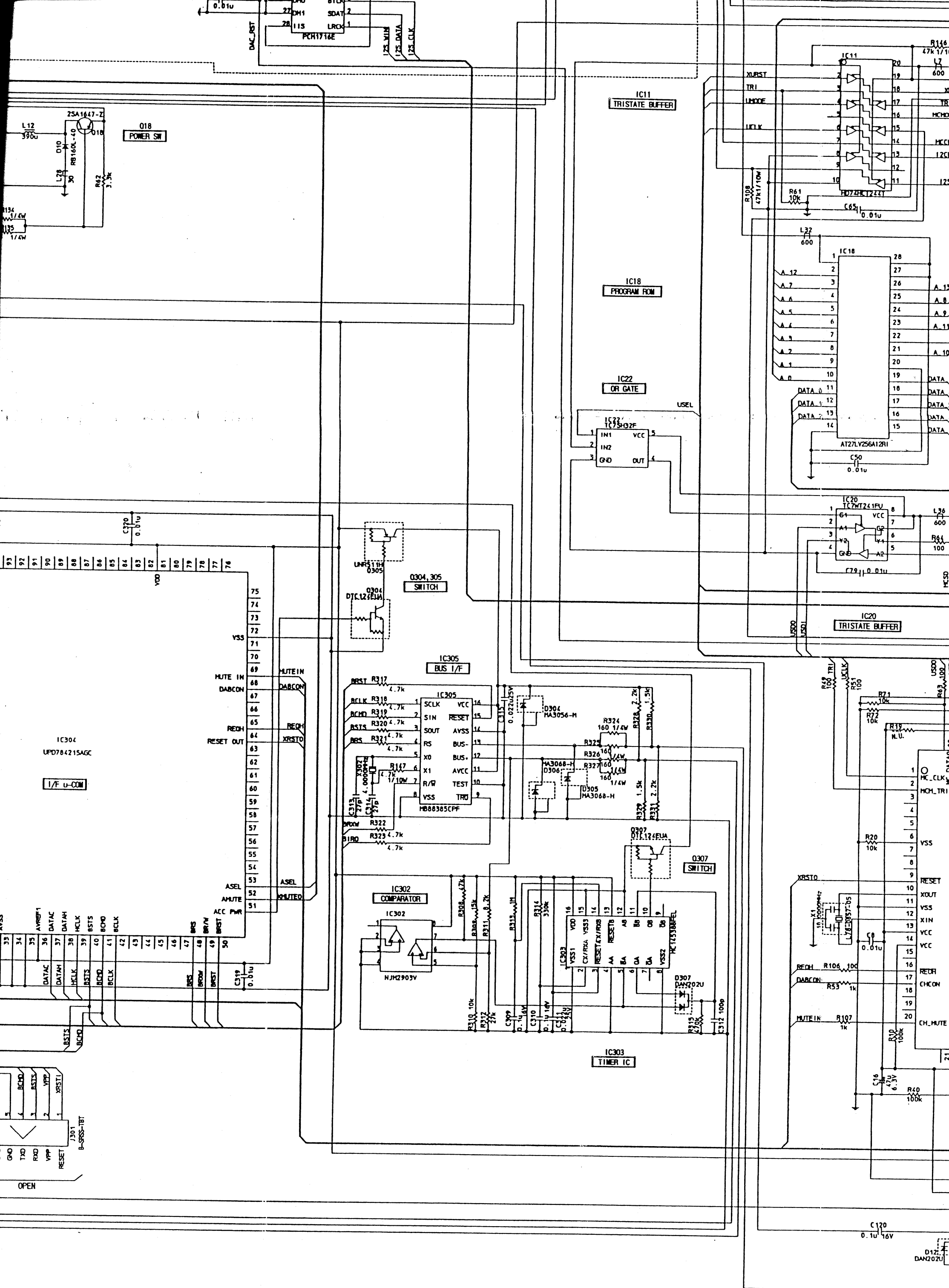
Main P.W.Board (Component Side View)

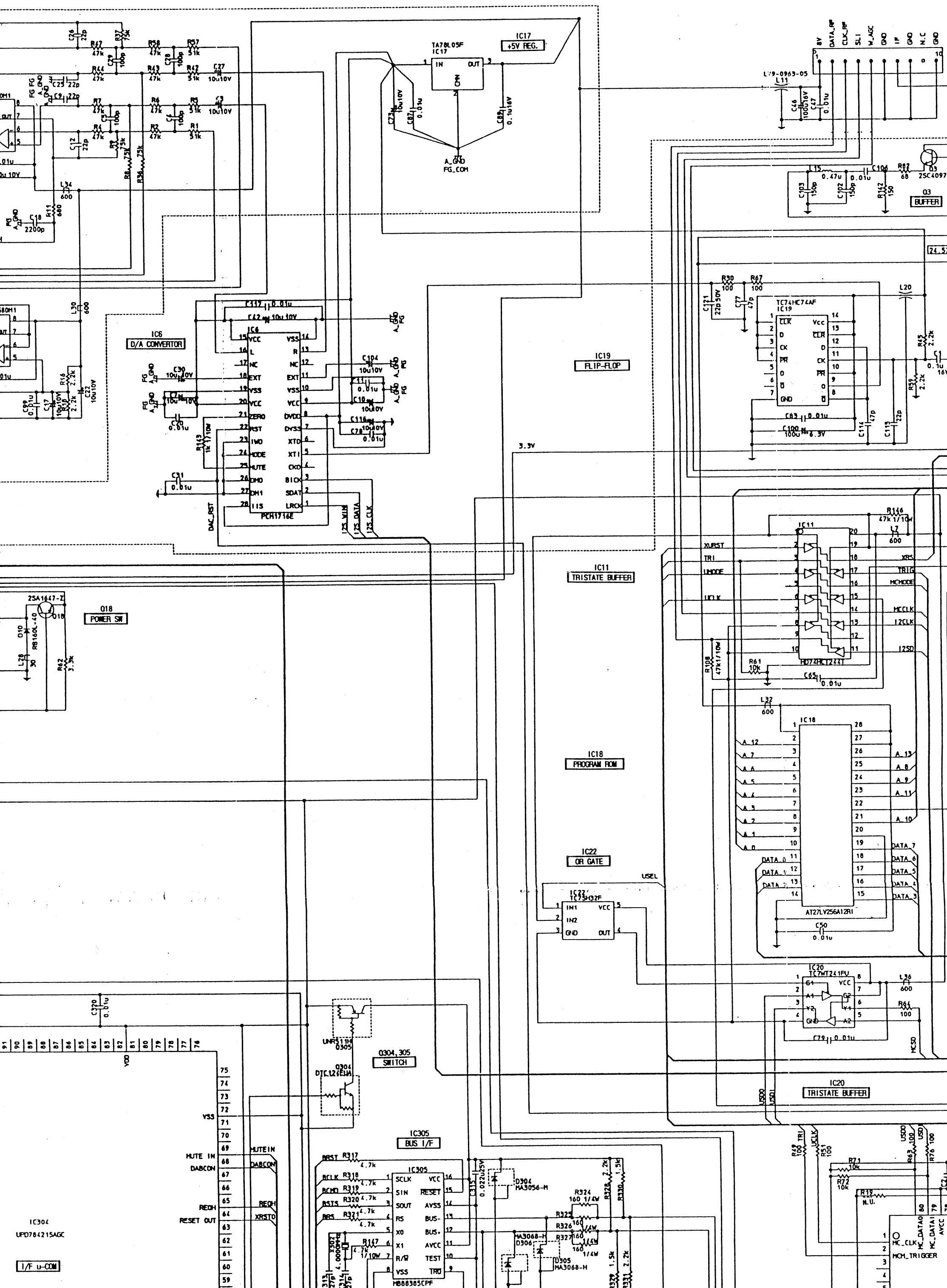


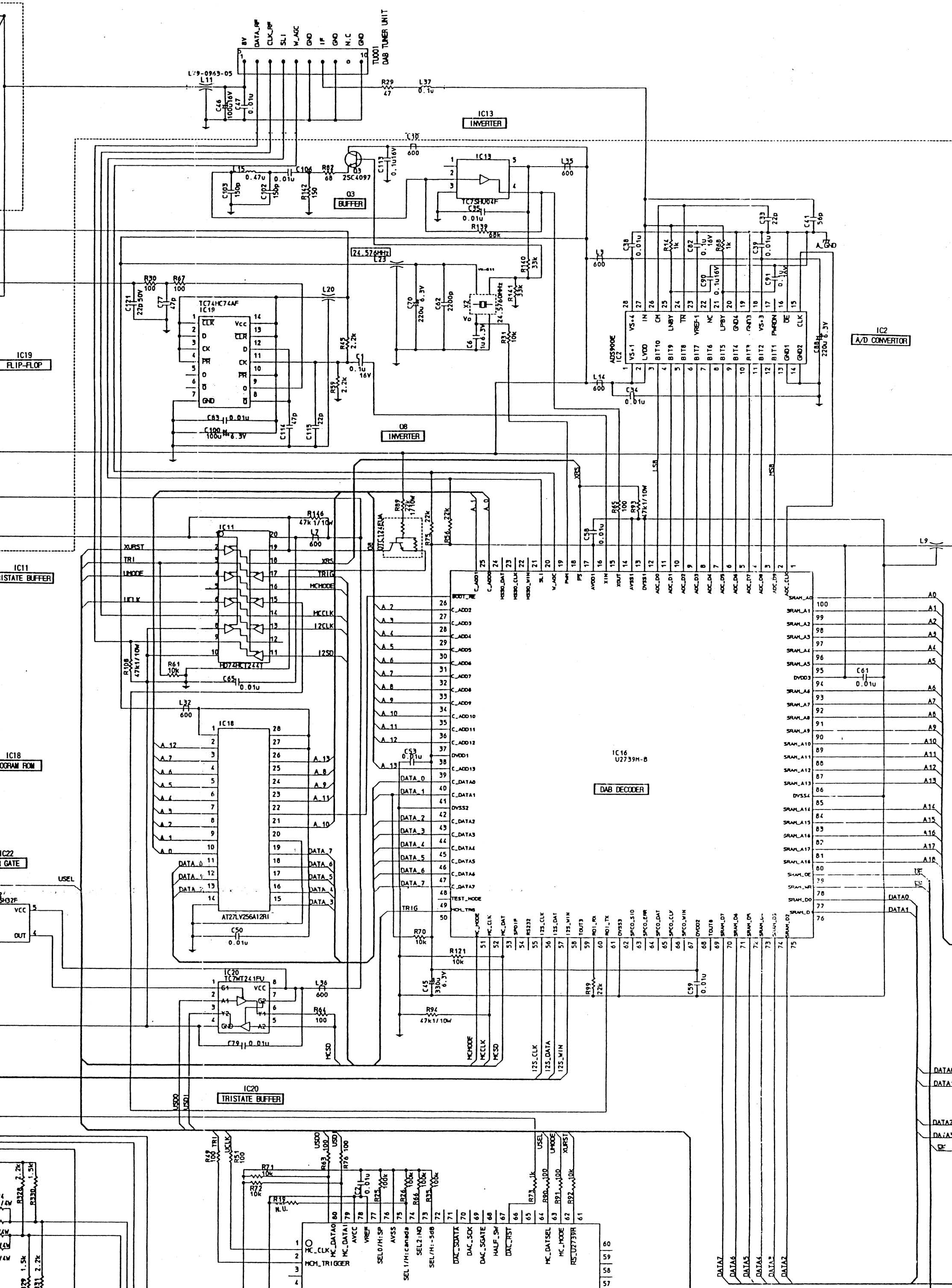
Schematic Diagram

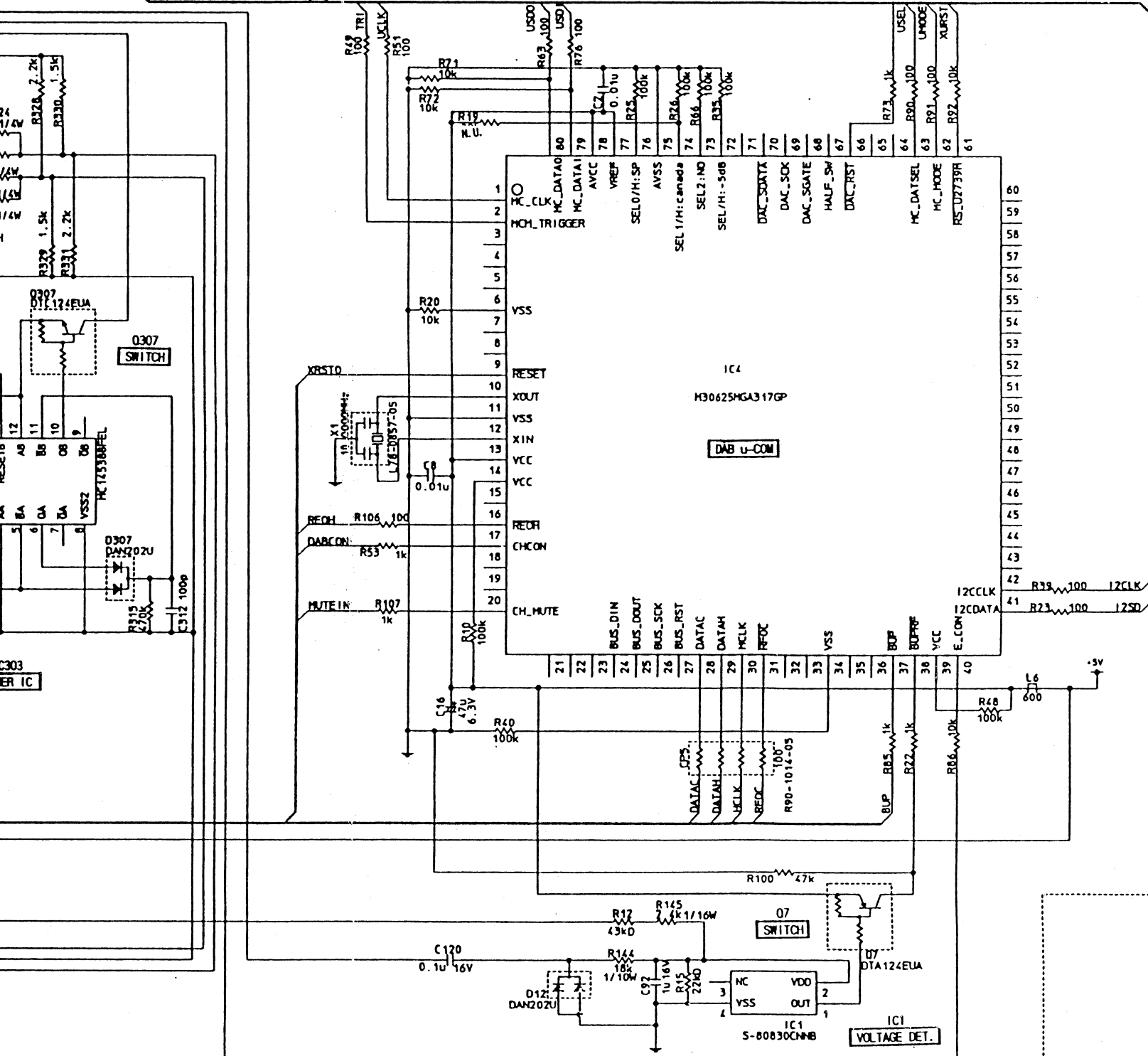
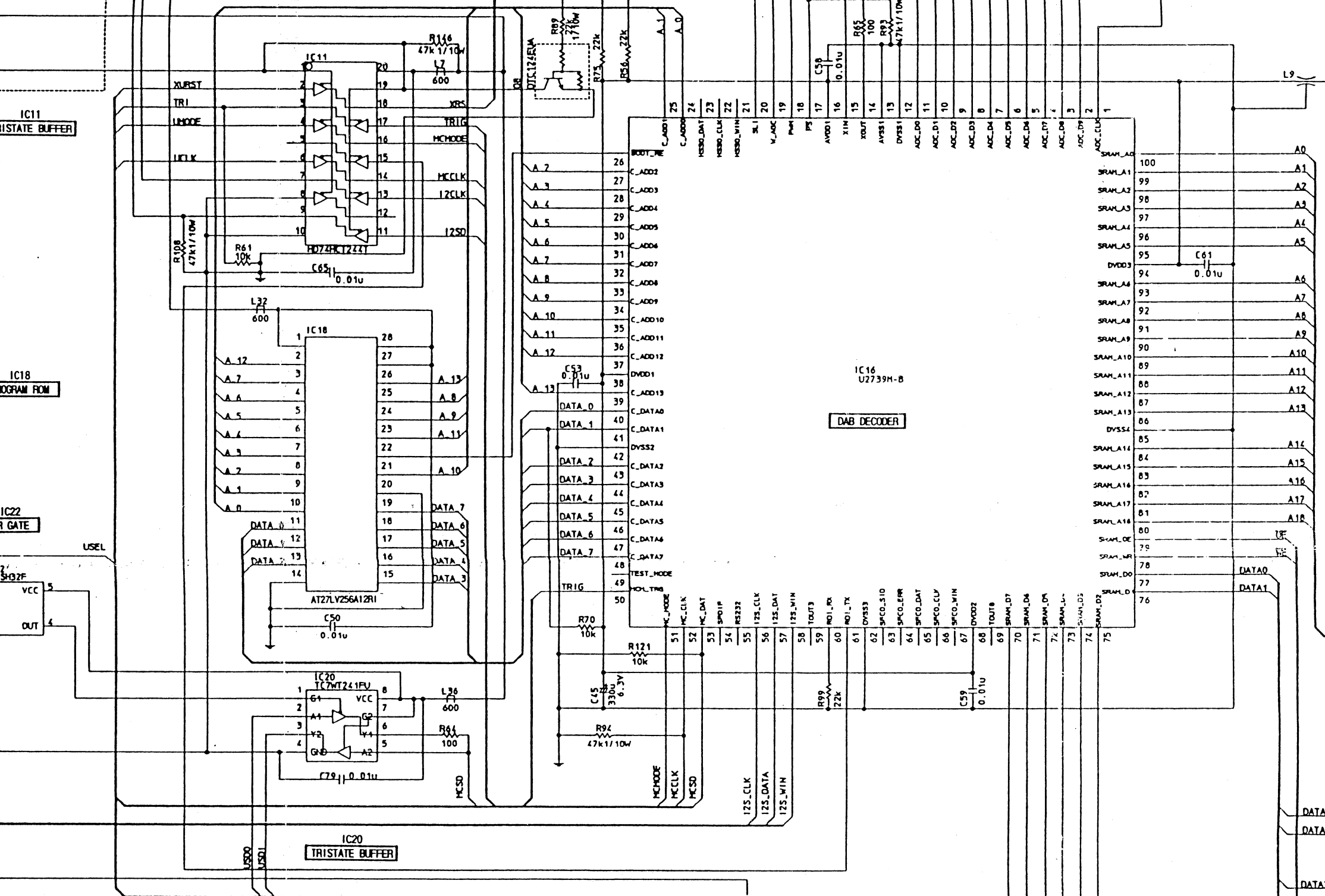


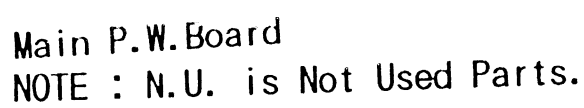


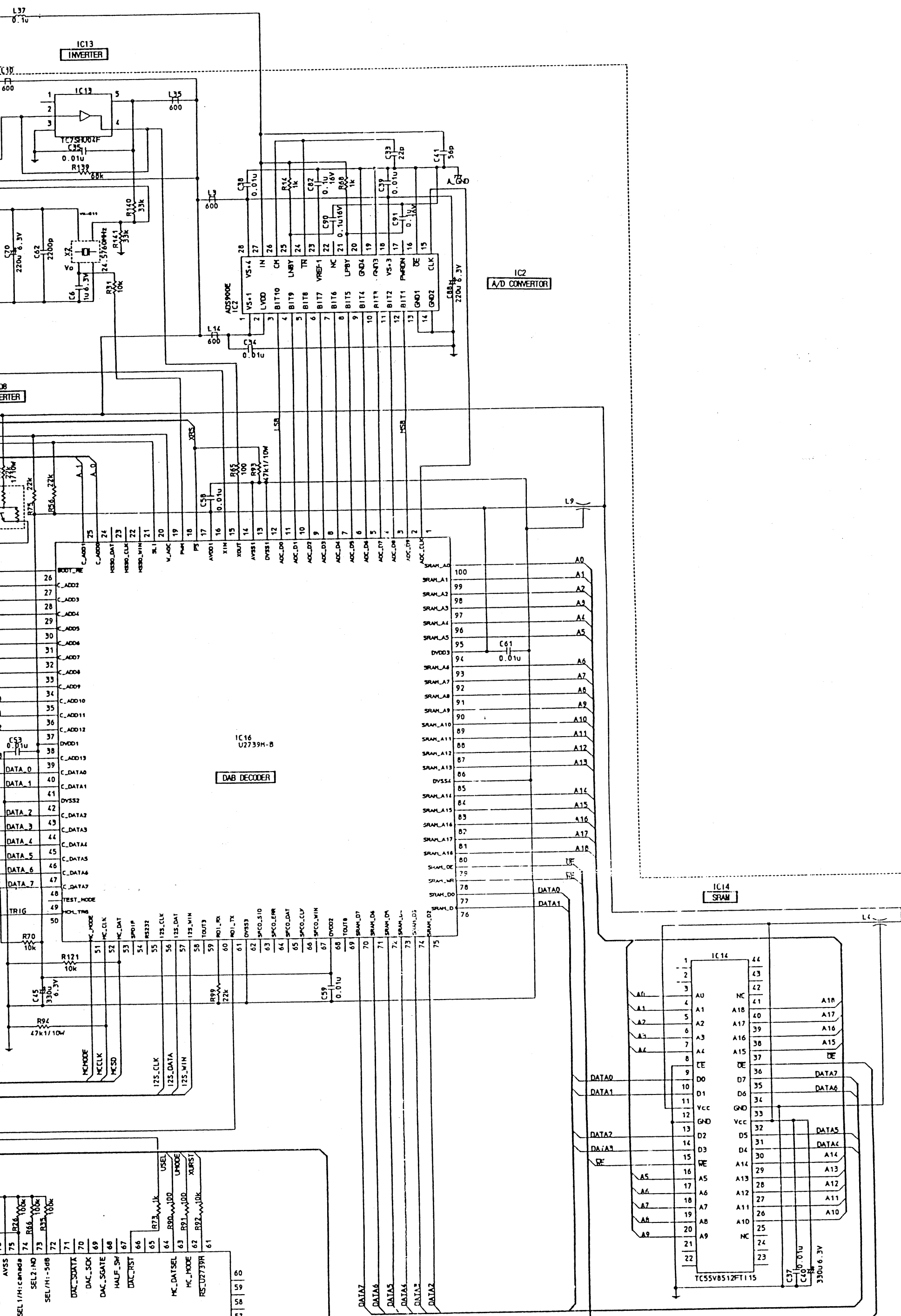












Terminal Voltage of IC

IC1	
1	5
2	5
3	NC
4	GND

IC5		
1	PS	INPUT:1kHz
2	PS	INPUT:1kHz
3	PS	INPUT:1kHz
4	GND	INPUT:1kHz
5	PS	INPUT:1kHz
6	PS	INPUT:1kHz
7	PS	INPUT:1kHz
8	8.2	INPUT:1kHz

IC2			
1	3.3	15	3.3Vp-p
2	3.3	16	GND
3	3.3Vp-p	17	NC
4	3.3Vp-p	18	3.3
5	3.3Vp-p	19	GND
6	3.3Vp-p	20	GND
7	3.3Vp-p	21	2
8	3.3Vp-p	22	NC
9	3.3Vp-p	23	1
10	3.3Vp-p	24	1.6
11	3.3Vp-p	25	1.3
12	3.3Vp-p	26	1.6
13	GND	27	1.5
14	GND	28	3.3

IC4							
1	5Vp-p	21	NC	41	4.8	61	4.8
2	5Vp-p	22	NC	42	4.8	62	5Vp-p
3	NC	23	NC	43	NC	63	5Vp-p
4	NC	24	NC	44	NC	64	NC
5	NC	25	NC	45	NC	65	NC
6	GND	26	NC	46	NC	66	0
7	NC	27	NC	47	NC	67	NC
8	NC	28	5Vp-p	48	NC	68	NC
9	4.4	29	5Vp-p	49	NC	69	NC
10	PS	30	5Vp-p	50	NC	70	NC
11	GND	31	5Vp-p	51	NC	71	NC
12	PS	32	NC	52	NC	72	0
13	5	33	NC	53	NC	73	0
14	4.8	34	0	54	NC	74	0
15	NC	35	NC	55	NC	75	GND
16	5Vp-p	36	NC	56	NC	76	0
17	4	37	0	57	NC	77	5
18	NC	38	0	58	NC	78	5
19	NC	39	4.8	59	NC	79	5Vp-p
20	0	40	4.8	60	NC	80	5Vp-p

IC6							
1	3.3Vp-p	8	5	15	5	22	5
2	3.3Vp-p	9	5	16	1.5	23	GND
3	3.3Vp-p	10	GND	17	NC	24	GND
4	NC	11	2.5	18	2.5	25	5
5	4.5Vp-p	12	NC	19	GND	26	GND
6	NC	13	1.5	20	5	27	GND
7	GND	14	GND	21	5	28	5

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IC8	
1	4
2	4
3	4
4	GND
5	4
6	4
7	4
8	8.2

IC11					
1	0	8	GND	15	3.3Vp-p
2	5	9	5	16	5Vp-p
3	5Vp-p	10	GND	17	3.3Vp-p
4	5Vp-p	11	5	18	5
5	NC	12	NC	19	0
6	5	13	5	20	5
7	5	14	5		

IC12					
1	DALTA WAVE	7	14.4Vp-p	13	1.3
2	1.3	8	GND	14	4
3	1.3	9	5	15	0
4	1.3	10	14.4Vp-p	16	2.5
5	1.5	11	3.5		
6	2.5	12	1.5		

IC13	
1	NC
2	PS
3	GND
4	PS
5	3.3

IC16							
1	3.3Vp-p	26	0	51	5Vp-p	76	3.3Vp-p
2	3.3Vp-p	27	3.3Vp-p	52	5Vp-p	77	3.3Vp-p
3	3.3Vp-p	28	3.3Vp-p	53	3.3Vp-p	78	3.3Vp-p
4	3.3Vp-p	29	3.3Vp-p	54	NC	79	3.3Vp-p
5	3.3Vp-p	30	3.3Vp-p	55	NC	80	3.3Vp-p
6	3.3Vp-p	31	3.3Vp-p	56	3.3Vp-p	81	3.3Vp-p
7	3.3Vp-p	32	3.3Vp-p	57	0	82	3.3Vp-p
8	3.3Vp-p	33	3.3Vp-p	58	3.3Vp-p	83	3.3Vp-p
9	3.3Vp-p	34	3.3Vp-p	59	NC	84	3.3Vp-p
10	3.3Vp-p	35	3.3Vp-p	60	0	85	GND
11	3.3Vp-p	36	3.3Vp-p	61	3.3Vp-p	86	3.3Vp-p
12	GND	37	3.3Vp-p	62	GND	87	3.3Vp-p
13	GND	38	3.3	63	NC	88	3.3Vp-p
14	PS	39	3.3Vp-p	64	NC	89	3.3Vp-p
15	PS	40	0	65	NC	90	3.3Vp-p
16	3.3	41	2.8	66	NC	91	3.3Vp-p
17	5	42	0	67	NC	92	3.3Vp-p
18	3.3Vp-p	43	0	68	3.3	93	3.3Vp-p
19	3.3Vp-p	44	0	69	NC	94	3.3
20	3.3	45	0	70	3.3Vp-p	95	3.3Vp-p
21	NC	46	0	71	3.3Vp-p	96	3.3Vp-p
22	NC	47	0	72	3.3Vp-p	97	3.3Vp-p
23	NC	48	0	73	3.3Vp-p	98	3.3Vp-p
24	3.3Vp-p	49	NC	74	3.3Vp-p	99	3.3Vp-p
25	3.3Vp-p	50	3.3Vp-p	75	3.3Vp-p	100	3.3Vp-p

IC17	
1	8.2
2	GND
3	5

IC14							
1	NC	12	GND	23	NC	34	GND
2	NC	13	3.3Vp-p	24	NC	35	3.3Vp-p
3	3.3Vp-p	14	3.3Vp-p	25	NC	36	3.3Vp-p
4	3.3Vp-p	15	3.3Vp-p	26	3.3Vp-p	37	3.3Vp-p
5	3.3Vp-p	16	3.3Vp-p	27	3.3Vp-p	38	3.3Vp-p
6	3.3Vp-p	17	3.3Vp-p	28	3.3Vp-p	39	3.3Vp-p
7	3.3Vp-p	18	3.3Vp-p	29	3.3Vp-p	40	3.3Vp-p
8	GND	19	3.3Vp-p	30	3.3Vp-p	41	3.3Vp-p
9	3.3Vp-p	20	3.3Vp-p	31	3.3Vp-p	42	NC
10	3.3Vp-p	21	NC	32	3.3Vp-p	43	NC
11	3.3	22	NC	33	3.3	44	NC

IC18							
1	3.3	8	3.3Vp-p	15	0	22	3.3Vp-p
2	3.3Vp-p	9	3.3Vp-p	16	0	23	3.3Vp-p
3	3.3Vp-p	10	3.3Vp-p	17	0	24	3.3Vp-p
4	3.3Vp-p	11	0	18	0	25	3.3Vp-p
5	3.3Vp-p	12	2.8	19	0	26	3.3Vp-p
6	3.3Vp-p	13	0	20	GND	27	3.3
7	3.3Vp-p	14	GND	21	3.3Vp-p	28	3.3

IC19			
1	5	8	5Vp-p
2	5	9	5Vp-p
3	5	10	5
4	5	11	PS
5	NC	12	5Vp-p
6	NC	13	5
7	GND	14	5

IC20			
1	5	5	0
2	0	6	0
3	0	7	5
4	GND	8	5

IC22	
1	0
2	PS
3	GND
4	PS
5	3.3

IC301					
1	NC	8	NC	15	5
2	NC	9	NC	16	5
3	NC	10	NC	17	14.4
4	5Vp-p	11	NC	18	NC
5	5	12	NC	19	NC
6	2.7	13	NC	20	NC
7	GND	14	NC		

IC302	
1	NC
2	GND
3	GND
4	GND
5	2
6	1.5
7	5Vp-p
8	5

IC303			
1	GND	9	NC
2	5Vp-p	10	GND
3	5	11	4
4	GND	12	0
5	5Vp-p	13	5
6	5Vp-p	14	5
7	NC	15	0
8	GND	16	5

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IC304							
1	NC	26	GND	51	5	76	NC
2	NC	27	GND	52	5	77	NC
3	NC	28	GND	53	0	78	NC
4	NC	29	GND	54	NC	79	NC
5	NC	30	GND	55	NC	80	NC
6	NC	31	GND	56	NC	81	NC
7	NC	32	GND	57	NC	82	5
8	NC	33	GND	58	NC	83	NC
9	5	34	GND	59	NC	84	NC
10	PS	35	5	60	NC	85	NC
11	PS	36	5	61	NC	86	NC
12	GND	37	0	62	NC	87	NC
13	NC	38	5	63	NC	88	NC
14	GND	39	5	64	0	89	NC
15	5	40	5Vp-p	65	0	90	NC
16	5	41	4.2Vp-p	66	NC	91	NC
17	5	42	NC	67	NC	92	NC
18	4.8Vp-p	43	NC	68	0	93	NC
19	5	44	NC	69	0	94	NC
20	NC	45	NC	70	NC	95	GND
21	NC	46	NC	71	NC	96	NC
22	NC	47	0	72	GND	97	NC
23	5	48	5Vp-p	73	NC	98	NC
24	GND	49	5	74	NC	99	NC
25	GND	50	5	75	NC	100	NC

IC305			
1	5Vp-p	9	5Vp-p
2	4.2Vp-p	10	GND
3	4.2Vp-p	11	5
4	4.2Vp-p	12	4Vp-p
5	PS	13	3Vp-p
6	4.6Vp-p	14	GND
7	4.6Vp-p	15	5
8	GND	16	5

IC306			
1	PS	8	4
2	PS	9	PS
3	PS	10	PS
4	4	11	PS
5	0	12	7.2
6	0	13	7.2
7	GND	14	8

IC307			
1	PS	5	PS
2	PS	6	PS
3	PS	7	PS
4	GND	8	NC

IC308			
1	4	5	4
2	4	6	4
3	4	7	4
4	GND	8	8.2

[Measuring Conditions]

- Power Supply Voltage : DC14.4V
 - Measuring Meter : Digital Multi Meter
 - Measuring Point Reference : Between GND
 - Measuring Condition : OFDM Modulate
- Input signal level : 1kHz
Input electric field level : -50dBm

Description of IC Terminal

M30625MGA317GP : IC4

No.	Symbol	I/O	Terminal Description
1	MC_CLK	0	U2739M L3-BUS clock terminal.
2	MCM_TRIGGER	I	U2739M data trigger terminal.
3	NC	-	No connect terminal.
4			
5			
6	VSS	-	Connect to VSS. (Pull-Down)
7	NC	-	No connect terminal.
8			
9	RESET	I	u-com reset terminal. (L:Reset)
10	XOUT	0	u-com clock 10MHz.
11	VSS	-	GND terminal. (u-com power supply)
12	XIN	I	u-com clock 10MHz.
13	VCC	-	+5V terminal for u-com power supply.
14	VCC	-	Connect to VCC. (Pull-Up)
15	NC	-	No connect terminal.
16	REQH	I	Communication request of head unit.
17	CHCON	I	5L system "ON" from head unit. (H:5L system "ON", L:5L system "OFF")
18	NC	-	No connect terminal.
19			
20	CH_MUTE	0	Mute of changer. (Direct from head unit) (H:mute "ON", L:mute "OFF")
21	NC	-	No connect terminal.
22			
27			
28	DATA_C	0	Communication data of DAB.
29	DATA_H	I	Communication data of head unit.
30	MCLK	I	Communication clock.
31	REQ_C	0	Communication request of DAB.
32	NC	-	No connect terminal.
33			
34	VSS	-	used at the time of flash u-com writing.
35	NC	-	No connect terminal.
36			
37	BUP	I	Backup power supply "ON" surveillance .
38	BUPRF	I	Power supply "ON" surveillance for RF.
39	VCC	-	used at the time of flash u-com writing.
40	E_CON	0	Circumference circuit power supply ON/OFF .
41	I2CDATA	0	RF PLL communication I2C-BUS data terminal.
42	I2CCLK	0	RF PLL communication I2C-BUS clock terminal.
43	NC	-	No connect terminal.
44			
60			
61	RS_U2739M	0	U2739M reset terminal.
62	MC_MODE	0	U2739M L3-BUS mode terminal.
63	MC_DATSEL	0	U2729M L3-BUS data select direction terminal.
64	NC	-	No connect terminal.

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No.	Symbol	I/O	Terminal Description
65	NC	-	No connect terminal.
66	DAC_RST	0	D/A converter reset terminal.
67	NC	-	No connect terminal.
71			
72	SEL3	I	Area setting 3 terminal. (Reserve)
73	SEL2	I	Area setting 2 5L interface u-com existence terminal.
74	SEL1	I	Area setting 1 center frequency table changing.
75	AVSS	-	A/D power supply input terminal.
76	SEL0	I	Area setting 0 special mode ON/OFF terminal.
77	VREF	-	A/D standard voltage input terminal.
78	AVCC	-	A/D power supply input terminal.
79	MC_DAT_I	I	U2739M L3-BUS data input terminal.
80	MC_DAT_O	0	U2739M L3-BUS data output terminal.

uPD784215AGC : IC304

No.	Symbol	I/O	Terminal Description
1	NC	-	No connect terminal.
7			
8			
9	VDD	-	Power supply connect terminal.
10	X2	-	Crystal OSC connect terminal for main system clock OSC. (10MHz)
11	X1		
12	VSS	-	GND connect terminal.
13	XT2	-	No connect terminal.
14	XT1	-	GND connect terminal.
15	RESET	-	System reset input terminal.
16	BAT-DET	I	BATT compulsion stand-by signal input terminal from VDD IC.
17	ACC-DET	I	ACC stand-by signal input terminal.
18	BIRQ	I	Interrupt signal input terminal from Ai-NET BUS IC.
19	REQC	I	Communication request input terminal from DAB u-COM. L : request
20	NC	-	No connect terminal.
21			
22			
23	AVDD	-	Analog power supply connect terminal of A/D converter.
24	AVREF0	-	Standard voltage input terminal of A/D converter.
25	NC(GND)	-	GND connect terminal.
31			
32			
33	AVSS	-	GND connect terminal of A/D converter.
34	NC(GND)	-	GND connect terminal.
35			
36	AVREF1	-	Standard voltage input terminal of D/A converter.
37	DATAI	I	Data input terminal from DAB u-COM.
38	DATAH	0	Data output terminal to I/F u-COM.

No.	Symbol	I/O	Terminal Description
39	HCLK	0	Synchronism clock output terminal to DAB u-COM.
40	BSTS	1	Serial data input terminal from Ai-NET BUS IC. (flash writing Rx)
41	BCMD	0	Serial data output terminal from Ai-NET BUS IC. (flash writing Tx)
42	BCLK	0	Serial clock output terminal to Ai-NET BUS IC.
43	NC	-	No connect terminal.
46			
47			
48	BRS	0	Register select signal output terminal to the Ai-NET BUS IC.
49	BR/W	0	Register R/W select signal output terminal to the Ai-NET BUS IC.
50	BRST	0	Reset signal output terminal to Ai-NET BUS IC.
51	ACC PWR	0	Power supply control output terminal by ACC.
52	AMUTE	0	Audio mute output terminal. L : MUTE ON
53	ASEL	0	Audio signal switching output terminal. H : Ai-NET, L : DAB
54	NC	-	No connect terminal.
57			
63			
64	RESET OUT	0	Reset control output terminal of DAB u-COM. L : RESET
65	REQH	0	Communication request output terminal of I/F u-COM. L : request
66	NC	-	No connect terminal.
67			
68	DABCON	0	ON/OFF control output terminal to DAB u-COM.
69	MUTE IN	1	MUTE signal input terminal from DAB u-COM.
70	NC	-	No connect terminal.
71			
72	VSS	-	GND connect terminal.
73	NC	-	No connect terminal.
76			
80			
81	VDD	-	Power supply connect terminal.
82	NC	-	No connect terminal.
85			
93			
94	VPP	-	GND connect terminal.
95	NC	-	No connect terminal.
98			
100			

TUA-T100DAB

Electrical Parts List

Capacitor : μ F=microfarads,pF=picofarads

Abbreviations		
RES.= Resistor	CAP.= Capacitor	
C.F.= Carbon Film	ELY.= Electrolytic	
M.F.= Metal Film	CER.= Ceramic	
M.O.= Metal OxideFilm	MYL.= Mylar	
M.P.= Metal Plate	TAN.= Tantalum	
TR. = Transistor	POLY.= Polystyrol	
TRANS.= Transformer	PP. = Polypropylene	
CP. = Chip	PLT.= Polyethylene	
	PF. = Polyester Film	
Symbol No.	Part No.	Description
MAIN P.W.Board		
IC's		
IC1	51E34001S01	S-80830CNCB-B8P-T2
IC2	51E33992S01	ADS900E/1K
IC4	51E33997S01	M30625MGA317GP
IC5	51E33999S01	NJM4580M (TE2)
IC6	51E34000S01	PCM1716E/T2
IC8	51E33999S01	NJM4580M (TE2)
IC11	51E33993S01	HD74HCT244TELL
IC12	51E33994S01	MB3778PF-G-BND-ER
IC13	51E34005S01	TC7SHU04F (TE85L)
IC14	51E34004S01	TC55V8512FT1-15
IC16	51E34012S01	U2739M-B
IC17	51E34002S01	TA78L05F
IC18	51E34013S01	AT27LV256A-12R1
IC19	51E34008S01	TC74HC74AF
IC20	51E34007S01	TC7WT241FU (TE12L)
IC22	51E34006S01	TC7SH32F (TE85L)
IC301	51E34009S01	TDA3606AT
IC302	51E33998S01	NJM2903V (TE2)
IC303	51E33996S01	MC14538BFEL
IC304	51T35566Y01	UPD784215AGC-XXX
IC305	51T55070W05	MB88385CPF-ER-SE9
IC306	51E34003S01	TC4066BF (EL, N)
IC307	51E33999S01	NJM4580M (TE2)
IC308	51E33999S01	NJM4580M (TE2)
Transistors		
Q3	48E34017S01	2SC4097
Q7	48E34019S01	DTA124EUA T106
Q8	48E34021S01	DTC124EUA T106
Q9	48E34014S01	2SA1647-Z-E2
Q18	48E34014S01	2SA1647-Z-E2
Q302	48E34015S01	2SC4081
Q303	48E34019S01	DTA124EUA T106

Symbol No.	Part No.	Description
Q304	48E34021S01	DTC124EUA T106
Q305	48E34018S01	UNR511H
Q307	48E34021S01	DTC124EUA T106
Q308	48E34021S01	DTC124EUA T106
Q309	48E34021S01	DTC124EUA T106
Q310	48E34021S01	DTC124EUA T106
Q311	48E34019S01	DTA124EUA T106
Q312	48E34021S01	DTC124EUA T106
Q313	48E34019S01	DTA124EUA T106
Q314	48E34021S01	DTC124EUA T106
Q315	48E34023S01	XN0F25600L
Diodes		
D10	48E34026S01	RB160-40TE25
D11	48E34026S01	RB160-40TE25
D12	48E34024S01	DAN202U
D301	48E34029S01	ZSH5MA27A
D302	48E34027S01	MA3056-M
D303	48E34024S01	DAN202U
D304	48E34027S01	MA3056-M
D305	48E34028S01	MZ3062
D306	48E34028S01	MZ3062
D307	48E34024S01	DAN202U
Filters		
L3	76E33991S01	BLM11A601SPT
L4	24E33989S01	NFM41PC204F1H3L
L6	76E33991S01	BLM11A601SPT
L7	76E33991S01	BLM11A601SPT
L8	76E33991S01	BLM11A601SPT
L9	24E33989S01	NFM41PC204F1H3L
L10	76E33991S01	BLM11A601SPT
L11	24E33989S01	NFM41PC204F1H3L
L14	76E33991S01	BLM11A601SPT
L20	24E33989S01	NFM41PC204F1H3L
L23	24E33989S01	NFM41PC204F1H3L
L28	76E33990S01	BLM21P300SPT
L29	76E33990S01	BLM21P300SPT
L30	76E33991S01	BLM11A601SPT
L32	76E33991S01	BLM11A601SPT
L34	76E33991S01	BLM11A601SPT
L35	76E33991S01	BLM11A601SPT
L36	76E33991S01	BLM11A601SPT

Symbol No.	Part No.	Description
Coils		
L12	24E33983S01	CDRH125-391MC
L15	24E33985S01	NL252018T-R475
L27	24E33983S01	CDRH125-391MC
L37	24E33984S01	NL252018T-R105
L301	24E33982S01	L33-1082-05
Crystals		
X1	91E33988S01	CSTCC10M0G53-R0
X2	91E33986S01	T2750
X301	91E33988S01	CSTCC10M0G53-R0
X302	91E33987S01	AT-51 4.000MHz
Capacitors		
C1	08E34101S01	GRM39 B 104K 16PB(PT)
C2	08E34105S01	GRM40 B 103K 50PB(PT)
C3	23E34085S01	RVS-10V100M-R
C4	08E34096S01	UMK107CH101JZ
C5	08E34096S01	UMK107CH101JZ
C6	08E34099S01	GRM39 B 105K 6.3PB(PT)
C7	23E34085S01	RVS-10V100M-R
C8	08E34105S01	GRM40 B 103K 50PB(PT)
C9	08E34092S01	C1608CH1H220JT
C10	23E34085S01	RVS-10V100M-R
C11	08E34105S01	GRM40 B 103K 50PB(PT)
C12	08E34092S01	C1608CH1H220JT
C15	08E34105S01	GRM40 B 103K 50PB(PT)
C16	23E34083S01	RVS-6V470M-R
C17	23E34085S01	RVS-10V100M-R
C18	08E34104S01	UMK107 B222KZ
C20	08E34105S01	GRM40 B 103K 50PB(PT)
C21	08E34104S01	UMK107 B222KZ
C22	23E34085S01	RVS-10V100M-R
C25	08E34092S01	C1608CH1H220JT
C26	08E34092S01	C1608CH1H220JT
C27	23E34085S01	RVS-10V100M-R
C28	08E34096S01	UMK107CH101JZ
C29	08E34096S01	UMK107CH101JZ
C30	23E34085S01	RVS-10V100M-R
C31	08E34105S01	GRM40 B 103K 50PB(PT)
C33	08E34092S01	C1608CH1H220JT
C34	08E34105S01	GRM40 B 103K 50PB(PT)
C35	08E34105S01	GRM40 B 103K 50PB(PT)
C37	08E34105S01	GRM40 B 103K 50PB(PT)
C38	08E34105S01	GRM40 B 103K 50PB(PT)

Symbol No.	Part No.	Description
C39	08E34105S01	GRM40 B 103K 50PB(PT)
C40	23E34088S01	16CV330AX
C41	08E34095S01	C1608CH1H560JT
C42	23E34085S01	RVS-10V100M-R
C45	23E34088S01	16CV330AX
C46	23E34087S01	16CV100AX
C47	08E34105S01	GRM40 B 103K 50PB(PT)
C49	23E34078S01	RJH-10V471MG4
C50	08E34105S01	GRM40 B 103K 50PB(PT)
C51	23E34085S01	RVS-10V100M-R
C52	08E34103S01	GRM39 B 152K 50PB(PT)
C53	08E34105S01	GRM40 B 103K 50PB(PT)
C54	08E34105S01	GRM40 B 103K 50PB(PT)
C55	08E34105S01	GRM40 B 103K 50PB(PT)
C56	08E34101S01	GRM39 B 104K 16PB(PT)
C57	08E34105S01	GRM40 B 103K 50PB(PT)
C58	08E34105S01	GRM40 B 103K 50PB(PT)
C59	08E34105S01	GRM40 B 103K 50PB(PT)
C60	23E34078S01	RJH-10V471MG4
C61	08E34105S01	GRM40 B 103K 50PB(PT)
C62	08E34104S01	UMK107 B222KZ
C63	23E34080S01	10SSH100M+T
C65	08E34105S01	GRM40 B 103K 50PB(PT)
C66	08E34100S01	GRM39 B 333K 16PB(PT)
C69	23E34075S01	RJ3-16V471MCX-T2
C70	23E34089S01	16CV220AX
C73	23E34085S01	RVS-10V100M-R
C75	08E34101S01	GRM39 B 104K 16PB(PT)
C77	08E34094S01	C1608CH1H470JT
C78	08E34105S01	GRM40 B 103K 50PB(PT)
C79	08E34105S01	GRM40 B 103K 50PB(PT)
C80	23E34085S01	RVS-10V100M-R
C82	08E34101S01	GRM39 B 104K 16PB(PT)
C83	08E34105S01	GRM40 B 103K 50PB(PT)
C84	23E34080S01	10SSH100M+T
C87	08E34105S01	GRM40 B 103K 50PB(PT)
C88	23E34089S01	16CV220AX
C89	08E34101S01	GRM39 B 104K 16PB(PT)
C90	08E34101S01	GRM39 B 104K 16PB(PT)
C91	08E34101S01	GRM39 B 104K 16PB(PT)
C92	08E34098S01	GRM40 B 105K 16PB(PT)
C99	08E34105S01	GRM40 B 103K 50PB(PT)
C100	23E34084S01	RVS-6V101M-R
C101	08E34105S01	GRM40 B 103K 50PB(PT)
C102	08E34097S01	UMK107CH151JZ
C103	08E34097S01	UMK107CH151JZ
C104	23E34085S01	RVS-10V100M-R
C106	08E34105S01	GRM40 B 103K 50PB(PT)
C113	08E34101S01	GRM39 B 104K 16PB(PT)

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Symbol No.	Part No.	Description
C114	08E34094S01	C1608CH1H470JT
C115	08E34092S01	C1608CH1H220JT
C116	23E34085S01	RVS-10V100M-R
C117	08E34105S01	GRM40 B 103K 50PB(PT)
C120	08E34101S01	GRM39 B 104K 16PB(PT)
C121	08E34092S01	C1608CH1H220JT
C301	23E34076S01	RJ3-16V222MCX
C302	08E34106S01	C1608JB1H473 KT
C303	23E34079S01	50MV 47CA+TS
C304	23E34081S01	RVS-50VR47M-R
C305	23E34086S01	RVS-16V220M-R
C306	08E34102S01	TMK107 BJ223KA
C307	23E34082S01	RVS-50V3R3M-R
C308	23E34074S01	RVS-50V010M-R
C309	08E34101S01	GRM39 B 104K 16PB(PT)
C310	08E34101S01	GRM39 B 104K 16PB(PT)
C311	08E34102S01	TMK107 BJ223KA
C312	08E34096S01	UMK107CH101JZ
C313	08E34093S01	C1608CH1H270JT
C314	08E34093S01	C1608CH1H270JT
C315	08E34102S01	TMK107 BJ223KA
C318	08E34105S01	GRM40 B 103K 50PB(PT)
C319	08E34105S01	GRM40 B 103K 50PB(PT)
C320	08E34105S01	GRM40 B 103K 50PB(PT)
C321	08E34105S01	GRM40 B 103K 50PB(PT)
C322	08E34101S01	GRM39 B 104K 16PB(PT)
C323	23E34087S01	16CV100AX
C327	23E34090S01	RVS-16V100M-R
C328	23E34090S01	RVS-16V100M-R
C329	23E34073S01	RVS-25V4R7M-R
C331	23E34073S01	RVS-25V4R7M-R
C332	08E34091S01	C1608CH1H100DT
C333	08E34091S01	C1608CH1H100DT
C334	08E34091S01	C1608CH1H100DT
C335	08E34091S01	C1608CH1H100DT
C336	23E34090S01	RVS-16V100M-R
C337	23E34090S01	RVS-16V100M-R
C340	23E34077S01	FSH0H473Z
C341	23E34090S01	RVS-16V100M-R
C342	23E34090S01	RVS-16V100M-R
Resistors		
CP5	06E34030S01	TSR3NTJ101V
R1	06E34056S01	RK73K2ASTD 51 Ω J
R2	06E34055S01	RK73K2ASTD 47k Ω J
R3	06E34060S01	RK73K2ASTD 100k Ω J
R4	06E34055S01	RK73K2ASTD 47k Ω J

Symbol No.	Part No.	Description
R5	06E34056S01	RK73K2ASTD 51 Ω J
R6	06E34055S01	RK73K2ASTD 47k Ω J
R7	06E34055S01	RK73K2ASTD 47k Ω J
R8	06E34059S01	MCR03 EZHJ 753
R9	06E34059S01	MCR03 EZHJ 753
R10	06E34060S01	RK73K2ASTD 100k Ω J
R11	06E34041S01	RK73K2ASTD 680 Ω J
R12	06E34070S01	RK73H1JTD 43.0k Ω D
R13	06E34066S01	RK73H1JTD 2.2k Ω D
R14	06E34042S01	RK73K2ASTD 1.0k Ω J
R15	06E34069S01	RK73H1JTD 22.0k Ω D
R16	06E34044S01	RPC05 T222J
R18	06E34044S01	RPC05 T222J
R20	06E34048S01	RK73K2ASTD 10k Ω J
R21	06E34068S01	RK73H1JTD 6.8k Ω D
R22	06E34042S01	RK73K2ASTD 1.0k Ω J
R23	06E34038S01	RK73K2ASTD 100 Ω J
R25	06E34060S01	RK73K2ASTD 100k Ω J
R26	06E34060S01	RK73K2ASTD 100k Ω J
R27	06E34066S01	RK73H1JTD 2.2k Ω D
R29	06E34036S01	RPC05 T470J
R30	06E34038S01	RK73K2ASTD 100 Ω J
R31	06E34048S01	RK73K2ASTD 10k Ω J
R32	06E34041S01	RK73K2ASTD 680 Ω J
R34	06E34045S01	RK73K2ASTD 3.3k Ω J
R35	06E34060S01	RK73K2ASTD 100k Ω J
R36	06E34059S01	MCR03 EZHJ 753
R37	06E34059S01	MCR03 EZHJ 753
R39	06E34038S01	RK73K2ASTD 100 Ω J
R40	06E34060S01	RK73K2ASTD 100k Ω J
R41	06E34049S01	RK73K2ASTD 12k Ω J
R42	06E34056S01	RK73K2ASTD 51 Ω J
R43	06E34055S01	RK73K2ASTD 47k Ω J
R44	06E34055S01	RK73K2ASTD 47k Ω J
R45	06E34044S01	RPC05 T222J
R47	06E34055S01	RK73K2ASTD 47k Ω J
R48	06E34060S01	RK73K2ASTD 100k Ω J
R49	06E34038S01	RK73K2ASTD 100 Ω J
R51	06E34038S01	RK73K2ASTD 100 Ω J
R53	06E34042S01	RK73K2ASTD 1.0k Ω J
R56	06E34052S01	RK73K2ASTD 22k Ω J
R57	06E34056S01	RK73K2ASTD 51 Ω J
R58	06E34055S01	RK73K2ASTD 47k Ω J
R59	06E34044S01	RPC05 T222J
R61	06E34048S01	RK73K2ASTD 10k Ω J
R62	06E34045S01	RK73K2ASTD 3.3k Ω J
R63	06E34038S01	RK73K2ASTD 100 Ω J
R64	06E34038S01	RK73K2ASTD 100 Ω J
R65	06E34038S01	RK73K2ASTD 100 Ω J

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
R66	06E34060S01	RK73K2ASTD 100k Ω J	R309	06E34050S01	RK73K2ASTD 15k Ω J
R67	06E34038S01	RK73K2ASTD 100 Ω J	R310	06E34048S01	RK73K2ASTD 10k Ω J
R68	06E34042S01	RK73K2ASTD 1.0k Ω J	R311	06E34047S01	RK73K2ASTD 8.2k Ω J
R69	06E34065S01	RK73H1JTD 2.0k Ω D	R312	06E34053S01	RPC05 T273J
R70	06E34048S01	RK73K2ASTD 10k Ω J	R313	06E34063S01	RK73K2ASTD 1.0M Ω J
R71	06E34048S01	RK73K2ASTD 10k Ω J	R314	06E34061S01	RPC05 T334J
R72	06E34048S01	RK73K2ASTD 10k Ω J	R315	06E34062S01	RK73K2ASTD 470k Ω J
R73	06E34042S01	RK73K2ASTD 1.0k Ω J	R316	06E34040S01	RK73K2ASTD 470 Ω J
R74	06E34060S01	RK73K2ASTD 100k Ω J	R317	06E34046S01	RK73K2ASTD 4.7k Ω J
R75	06E34052S01	RK73K2ASTD 22k Ω J	R318	06E34046S01	RK73K2ASTD 4.7k Ω J
R76	06E34038S01	RK73K2ASTD 100 Ω J	R319	06E34046S01	RK73K2ASTD 4.7k Ω J
R79	06E34064S01	RK73H1JTD 1.2k Ω D	R320	06E34046S01	RK73K2ASTD 4.7k Ω J
R81	06E34064S01	RK73H1JTD 1.2k Ω D	R321	06E34046S01	RK73K2ASTD 4.7k Ω J
R82	06E34037S01	MCR03 EZHJ 680	R322	06E34046S01	RK73K2ASTD 4.7k Ω J
R85	06E34042S01	RK73K2ASTD 1.0k Ω J	R323	06E34046S01	RK73K2ASTD 4.7k Ω J
R86	06E34048S01	RK73K2ASTD 10k Ω J	R324	06E34033S01	RPZ18 T 161J
R89	06E34052S01	RK73K2ASTD 22k Ω J	R325	06E34033S01	RPZ18 T 161J
R90	06E34038S01	RK73K2ASTD 100 Ω J	R326	06E34033S01	RPZ18 T 161J
R91	06E34038S01	RK73K2ASTD 100 Ω J	R327	06E34033S01	RPZ18 T 161J
R92	06E34048S01	RK73K2ASTD 10k Ω J	R328	06E34044S01	RPC05 T222J
R93	06E34055S01	RK73K2ASTD 47k Ω J	R329	06E34043S01	RK73K2ASTD 1.5k Ω J
R94	06E34055S01	RK73K2ASTD 47k Ω J	R330	06E34043S01	RK73K2ASTD 1.5k Ω J
R99	06E34052S01	RK73K2ASTD 22k Ω J	R331	06E34044S01	RPC05 T222J
R100	06E34055S01	RK73K2ASTD 47k Ω J	R334	06E34044S01	RPC05 T222J
R106	06E34038S01	RK73K2ASTD 100 Ω J	R335	06E34048S01	RK73K2ASTD 10k Ω J
R107	06E34042S01	RK73K2ASTD 1.0k Ω J	R338	06E34060S01	RK73K2ASTD 100k Ω J
R108	06E34055S01	RK73K2ASTD 47k Ω J	R339	06E34060S01	RK73K2ASTD 100k Ω J
R121	06E34048S01	RK73K2ASTD 10k Ω J	R340	06E34031S01	RPC05 0R0
R132	06E34034S01	RPZ18 T 102J	R341	06E34031S01	RPC05 0R0
R133	06E34034S01	RPZ18 T 102J	R342	06E34035S01	RPZ18 T 221J
R134	06E34034S01	RPZ18 T 102J	R343	06E34035S01	RPZ18 T 221J
R135	06E34034S01	RPZ18 T 102J	R344	06E34032S01	RPZ18 T 101J
R139	06E34058S01	RK73K2ASTD 68k Ω J	R345	06E34032S01	RPZ18 T 101J
R140	06E34054S01	RK73K2ASTD 33k Ω J	R346	06E34052S01	RK73K2ASTD 22k Ω J
R141	06E34054S01	RK73K2ASTD 33k Ω J	R347	06E34052S01	RK73K2ASTD 22k Ω J
R142	06E34039S01	RK73K2ASTD 150 Ω J	R348	06E34048S01	RK73K2ASTD 10k Ω J
R143	06E34042S01	RK73K2ASTD 1.0k Ω J	R349	06E34031S01	RPC05 0R0
R144	06E34051S01	RK73K2ASTD 18k Ω J	R350	06E34069S01	RK73H1JTD 22.0k Ω D
R145	06E34067S01	RK73H1JTD 2.4k Ω D	R351	06E34069S01	RK73H1JTD 22.0k Ω D
R146	06E34055S01	RK73K2ASTD 47k Ω J	R352	06E34069S01	RK73H1JTD 22.0k Ω D
R147	06E34046S01	RK73K2ASTD 4.7k Ω J	R353	06E34069S01	RK73H1JTD 22.0k Ω D
R301	06E34072S01	RK73H1JTD 330.0k Ω D	R354	06E34069S01	RK73H1JTD 22.0k Ω D
R302	06E34071S01	RK73H1JTD 120.0k Ω D	R355	06E34052S01	RK73K2ASTD 22k Ω J
R303	06E34057S01	RK73K2ASTD 56k Ω J	R358	06E34052S01	RK73K2ASTD 22k Ω J
R304	06E34042S01	RK73K2ASTD 1.0k Ω J	R359	06E34052S01	RK73K2ASTD 22k Ω J
R305	06E34055S01	RK73K2ASTD 47k Ω J	R360	06E34055S01	RK73K2ASTD 47k Ω J
R306	06E34055S01	RK73K2ASTD 47k Ω J			
R307	06E34055S01	RK73K2ASTD 47k Ω J			
R308	06E34055S01	RK73K2ASTD 47k Ω J			

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Symbol No.	Part No.	Description
Connector		
J301	09E34107S01	BM07B-SRSS-TBT
Miscellaneous		
CN301	09E34650S01	5569-04A1 (POWER SUPPLY)
CN302	09E34651S01	TCP9389-11-1010 (Ai-NET (OUTPUT))
CN303	09E33980S01	TCP9389-11-1030 (Ai-NET (INPUT))
F304	65E34654S01	AUTO, FUSE 7.5A (For Battery Line)

Symbol No.	Part No.	Description

Cabinet Assembly Parts List

NOTE: The part that has not PART NUMBER will not be supplied.

Symbol No.	Index	Part No.	Description
1		-----	COVER, TOP
2		-----	CHAS, BOTTOM
3		03S38013W24	SCR, T-TITE M2. 6X6BLK
4		03S70494F12	SCR, P-TITE M2X8 BLK
5		03S40036U26	SCR, T. T. M2. 6X6 T. L
7		09E33981S01	HOLDER, FUSE
8		03S63857F51	SCR, TPG M3X10
9		07A13041W01	BKT, PANEL (A)
10		77E33976S01	DAB TUNER UNIT (TU001)
11		75E34655S01	CUSHION

NOTE: The part that has not PART NUMBER will not be supplied.			
Symbol No.	Index	Part No.	Description

Exploded View (Cabinet)

